

BLASTOMYCETIC DERMATITIS OF THE GLUTEAL REGION.¹

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THE history of this case is somewhat incomplete on account of the patient's mental condition, but so far as obtainable it is as follows:

Family History. The patient is a woman, aged seventy-eight years. Both her father and husband died from unknown causes. Her mother died of phthisis. She has had nine children; one daughter has phthisis, one son is living and well, one child died in infancy, two children died of yellow fever, and four are dead of causes unknown to the patient.

Past History. The patient was born in Germany; lived in New Orleans for forty years, during which time she had yellow fever. She never had any other illnesses, denies venereal infection, and there are no stigmata present. She has lived in Chicago for the past ten years.

Present History. Patient's present trouble commenced nearly four years ago, when she noticed a pimple on her left hip, which became a roughened area of intense itching, and later, on account of scratching, became apparently denuded of epithelium. The growth gradually increased in size and the itching persisted, but of much less intensity.

She was admitted to the Cook County Hospital as a case of syphilitic ulcer. A piece of the growth was excised and on microscopical examination a diagnosis of epithelioma was made and the patient transferred to the surgical service of Dr. Charles Davison, who has kindly permitted me to report the case.

The growth is on the upper posterior part of the left gluteal region; it is oval in outline, measuring 11 cm. long by about 6 cm. wide. The entire growth is movable on the underlying tissues. The border is quite hard, elevated about 8 mm., and in places the growth can be felt extending out into the surrounding skin. From the inner side of the border papillomatous growths overhang the floor; they are of various sizes, the largest measuring 2 cm. long. Most of these villous-like projections bear secondary and tertiary growths of a smaller size, the whole being covered with epithelium, giving them a bluish-white color similar to venereal warts. At no point on the border is there an area of ulceration indicating an extension of the process (Fig. 1).

The floor is covered with small fungoid epithelial growths similar to those projecting inward from the border. These papillæ vary in size from a small elevation to 0.5 cm. in height. Here and there among these elevations are darker red areas of ulceration, the whole floor being more or less covered with a hemorrhagic exudate. Extending in a diagonal direction nearly across the growth is a band of uninvolved skin about 2 cm. wide.

There are no secondary growths near, or, in fact, on any part of the body; but on the bridge of the nose is a hard, non-ulcerated, sessile tumor about the size of a hazel-nut. It is freely movable on the bone,

¹ Read before the Chicago Pathological Society.

but the skin is closely attached to it. On the surface are seen several dilated bloodvessels. This little tumor is painless. It has been there for the past twenty years, and the patient thinks it is due to the irritation of a pair of brass spectacles. It bears no resemblance whatever to the growth on the hip, and microscopical examination shows it to be an endothelioma.

The patient complains only of the itching, which is much less intense than when the growth started, but which at times interferes with walking; there has been no actual pain at any time. The neighboring lymph glands are but slightly enlarged.

Pieces of the hip lesion were fixed in 4 per cent. aqueous formalin, dehydrated in alcohol, cleared in benzole and cedarwood oil, embedded in paraffin, and stained by various methods. The best results were

FIG. 1.



obtained with eosin and polychrome methylene-blue, but hæmatoxylin, followed by Van Gieson's stain, gave good results, as did also Weigert's elastic-tissue stain. Sections stained for tubercle bacilli were negative, as were those stained by Gram's method.

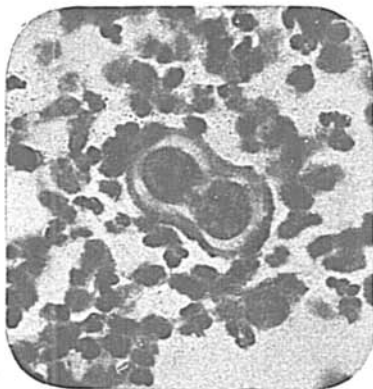
Microscopical Appearance. Some distance outside of the growth the skin is normal, but on approaching the affected area the interpapillary processes of the rete mucosum are seen to extend deeper into the corium, and instead of being regular in form they often have knob-like projections from their sides, as if they were budding, and at their lower extremity they often bifurcate to enclose a mass of corium. This irregularity increases the nearer we approach the growth. At the edge of the growth we see the papillomatous outgrowths extending over the floor. They are seen to be formed by an extension of the

corium, covered on both surfaces with epithelium, which extends into the interior in irregular projections.

In this core, so to speak, are irregular isolated masses of epithelium, many of which are hollow and contain corium infiltrated with round and plasma cells and leucocytes. Occasionally in these islands of epithelium we find the miliary abscesses which are so characteristic of this disease.

The floor of the growth shows villous projections similar to those described as growing inward from the border. From the surface of the floor there is a marked hyperplasia of the rete mucosum, which dips down into the corium in coral-like projections, branching in different directions or subdividing to enclose masses of the corium. Sometimes the cells in the centre of these epithelial down-growths have

FIG. 2.



Budding form of blastomycetic organism. (BAUSCH and LOEB, $\frac{1}{12}$.)

become cornified and taken on a concentric arrangement simulating the pearls of epithelioma.

In other places are seen miliary abscesses, composed mostly of collections of polynuclear leucocytes, desquamated epithelial cells, more or less granular material, an occasional giant cell, and the specific organism. These abscesses are surrounded by flattened epithelial cells, the prickles of the outer layers being well preserved. The abscesses are most numerous deep in the corium, where the organisms and giant cells are also more common. The giant cells are of the tuberculous type; they are found more abundantly in the areas of round-cell infiltration which are present here and there, and especially where a miliary abscess has ruptured; once in a while a giant cell is seen containing the blastomycetic organism (Fig. 2).

The organism is the typical double-contoured circular or oval body having a mass of deeply staining, granular protoplasm, which is usually eccentrically placed, often containing one or more vacuoles. The organisms vary much in size and are found in groups of two or more, usually in the different stages of budding. They are not so numerous in this case as in some of those previously reported. They show a tendency to occur in the periphery of the abscesses or free in the corium where an abscess has ruptured, and are often surrounded by a granular material which takes the eosin stain. I have been unable to find any organisms free in the rete or in the necrotic material covering the ulcerated areas.

The corium is well preserved and very vascular; the entire tissue is more or less cedematous and shows a marked infiltration with leucocytes, which while most numerous in the miliary abscesses are also seen in great numbers between the cells of the epithelium, seemingly working their way toward the surface. There are vast numbers of polynuclear eosinophiles and plasma cells in the corium; mast cells are also not uncommon.

The appendages of the skin, hair follicles, and glands have entirely disappeared.

Unfortunately there were no cultures made from this case.

The treatment consisted of complete excision of the affected area and the sliding of cutaneous flaps to cover the defect. With the exception of some sloughing of the flaps and the development of a pleurisy with effusion, the patient has made a satisfactory recovery, and there is no evidence of recurrence.

SUBINVOLUTION OF THE UTERUS: THREE SUGGESTIVE CASES.

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SOME apology may seem to be due for a paper on so familiar a subject, but one will search and find but few articles in medical journals and society reports devoted to gynecological subjects which are not of a surgical nature; very few, indeed, on the therapeutic use of medicines. Gynecology, it is true, is largely surgical, and without surgery would be relegated to its position of nearly half a century ago. "That the pursuit and report of surgical procedures are in many ways more satisfactory than the investigations of the virtues of medical remedies—more satisfactory because of the brilliancy of execution, the certainty of results, and a higher remuneration—we all appreciate." A satirist has defined therapeutics to be the art of introducing a medicine of which we know little into a body of which we know still less. *Arts medica tota est in observationibus.* "One of the most elementary requirements of science is the power of distinguishing between real and merely apparent causes. . . . It is indeed a power most rare among therapeutists as well as most difficult to exercise, so strong is the ten-